Manual

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NEO-6M Ublox GPS V2

Version 1.0 - 09/01/14

SUMMARY

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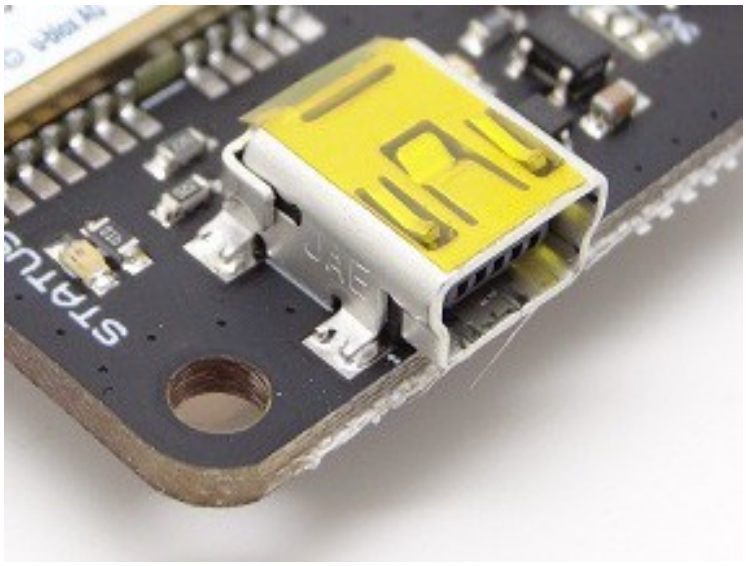
1.UART1 SERIAL PORT CONFIGURATION VIA USB

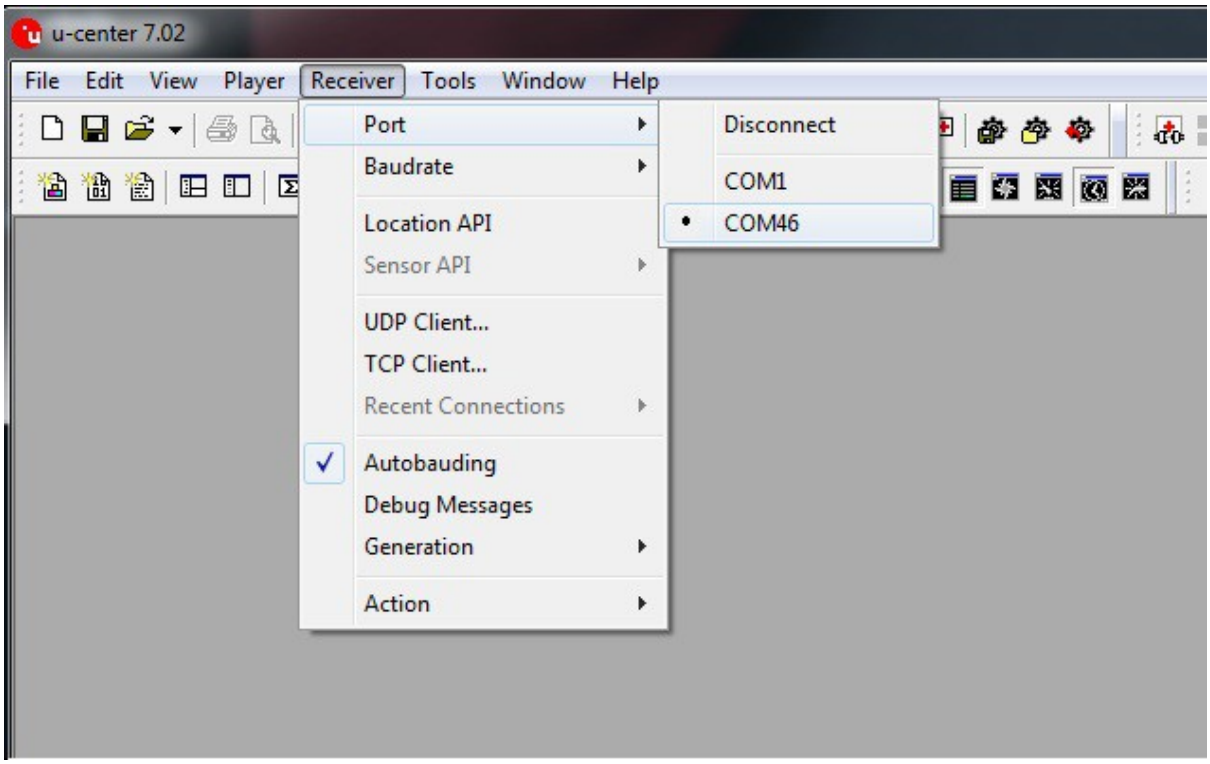
1.1.Connexion between PC and GPS module



First, you have to connect USB cable between PC & GPS module. Blue led on the GPS shoud be on when GPS is powered. After few seconds, the COM port should be detected on the PC.

Download & install U-center software from Ublox website here:
http://www.u-blox.com/en/evaluation-tools-a-software/u-center/u-center.html
Start U-Center by clicking icon belows.

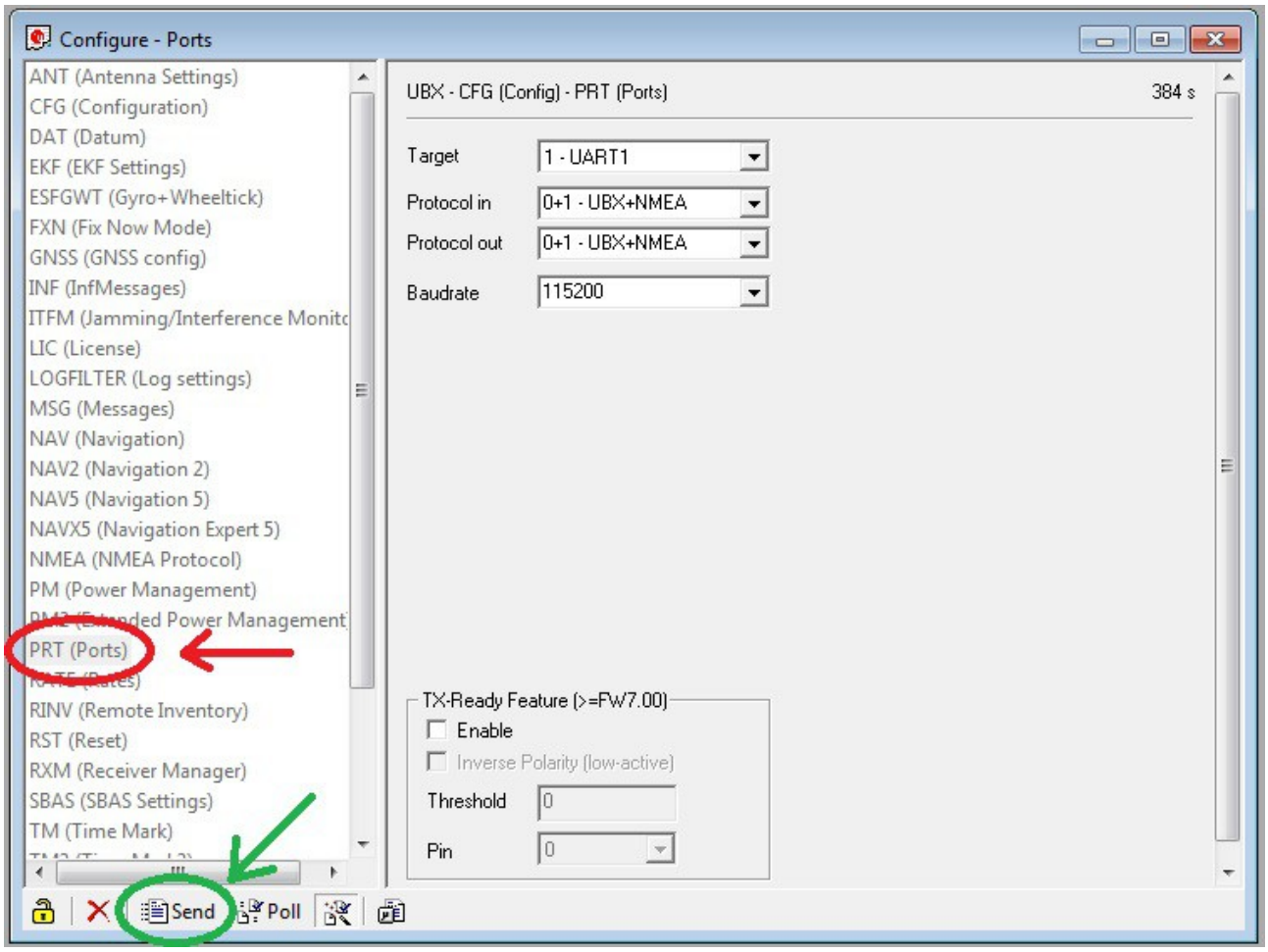
Once the software is running, go to Receiver menu & select your GPS COM port.



If you want to see the different frames sent by the GPS, you just have to use F6, F7 & F8 keys.

1.2.Frame type and baudrate configuration

Enter configuration mode with CTRL+F9, then go in « PRT » menu.

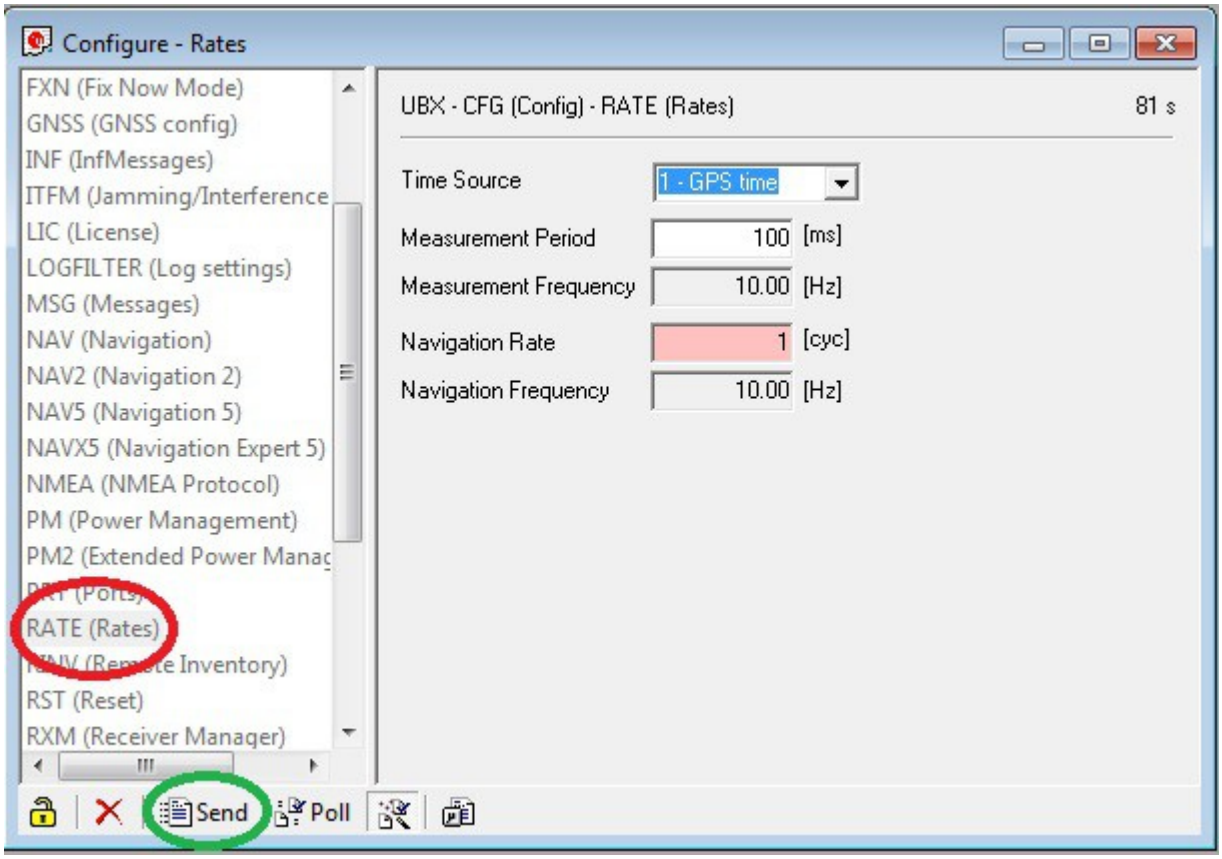


You can now change the baudrate to communicate with your flight controller or any other microcontroller via serial port UART1.
You also can choose the frame type (NMEA or Ublox) by modifying “Protocol out” drop down menu.

Caution : Any change needs to be validated by using « Send » button. See picture above.

1.3.Frequency configuration

Frame frequency can be configured from 1hz to 10hz.
Please do the same operation than above but with "RATE" menu.



You need to edit "Measurement Period" value for changing the frequency.
ie: Measurement Period = 1000ms for 1hz.

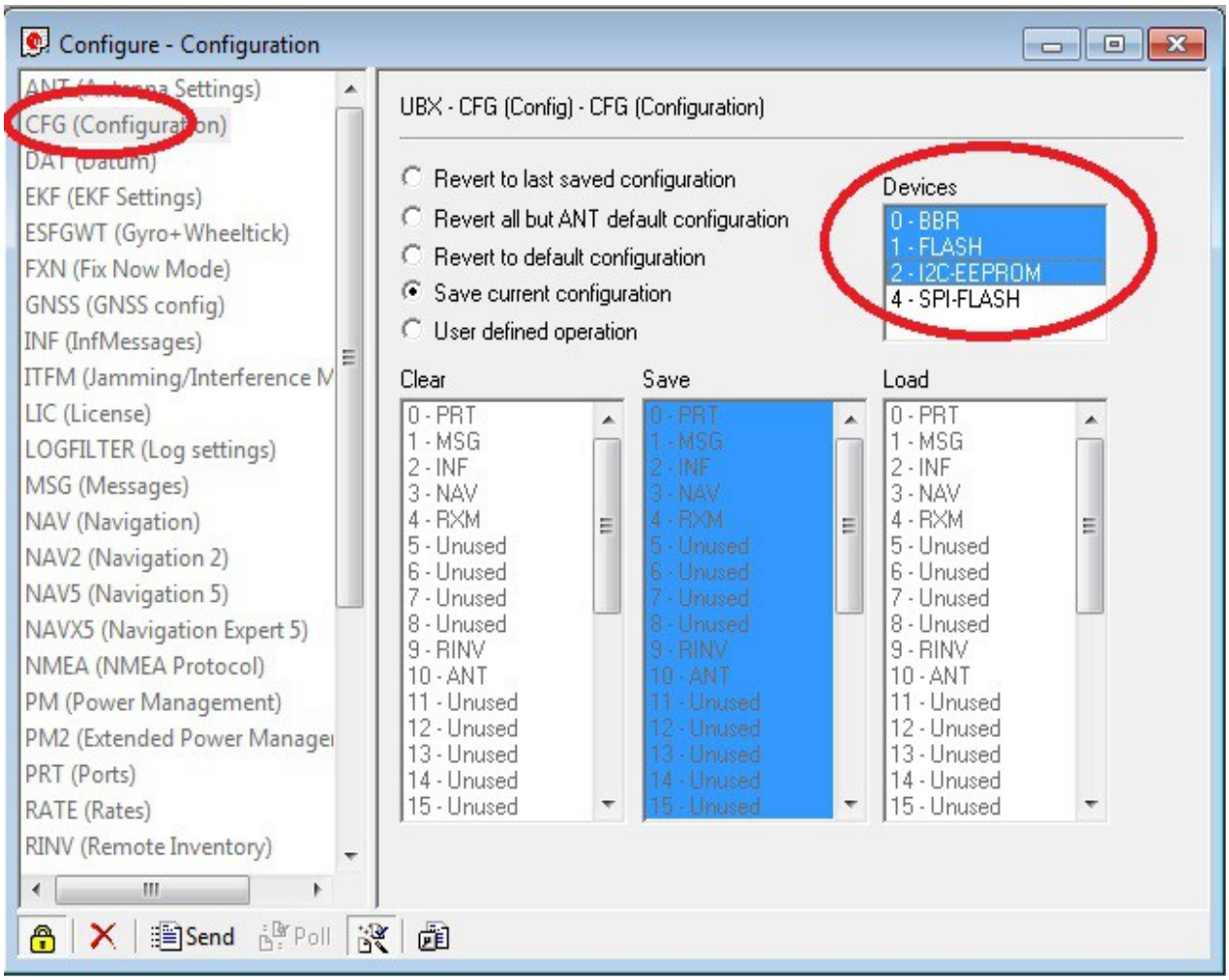
Don't forget "Send" button to validate your configuration once you've finished.

1.4.Frame configuration

You can activate/deactivate some serial port output data through “MSG” menu. This allows sending only necessary data to your controller, avoiding bandwidth overload & memory consumption.

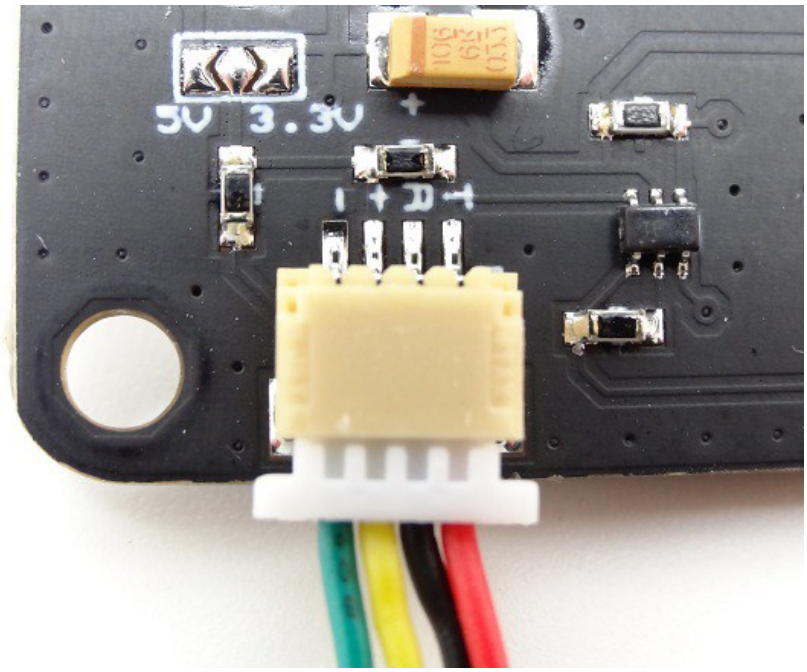
1.5.Save configuration in EEPROM

Once you've finished to configure your GPS, you need to save it on Ublox EEPROM to keep it configured for next startup.
In "CFG" menu, don't forget to select "I2C-EEPROM" then "Send" button to save it.

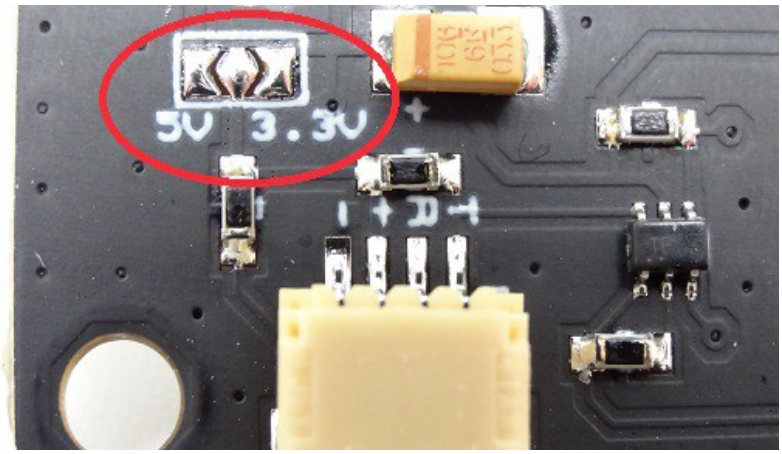


2.CONNEXION BETWEEN PC AND THE MAIN BOARD

Connect the provided cable like in the picture below without taking in count wire colors.



TX & Rx input/output are only used for serial communication.
They handle communication between your GPS and the serial port of your main board.
VDD is GPS power in, and needs to be between 3.3v & 5v.



Select the needed voltage by soldering the bridge like in the picture below.

For 5V, solder left and center pads. For 3.3v, solder right & center pads.

GPS module has an integrated LLC (logic level converter). It will convert input/output voltage to the same as choosen VDD.
To summerize:
- if VDD = 5V then Tx/Rx = 0~5V.
- if VDD = 3.3v then Tx/Rx = 0~3.3v

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